Appl. No. 10/769,030
Amdt. dated February 11, 2008
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2185

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## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

1-9.    (Canceled)

10.    (Currently amended)  A system including a storage device having a disk device and a cache memory, a management computer, and a plurality of computers connected to said storage device and classified into a plurality of groups, comprising:

said management computer for transmitting to said storage device a~~ ~~one or more first command~~s~~ containing information for specifying computers in a first group of computers and ~~information for specifying access history information that identifies a data access pattern and a history of data readout activity for said~~ an access history identifier for each of the specified computers in said first group; ~~and said storage device;~~

said storage device for maintaining a plurality of access histories for each computer in the first group of computers wherein, when a computer in said first group of computers specified by said first command~~s~~ ~~reads out~~requests data from said storage device, ~~reading~~said storage unit records a storage location of ~~said~~the requested data in said disk device as a history that is linked with ~~information for specifying~~said access history ~~information~~ identifier of said requesting computer specified by said first commands; ~~and information about said computer to be specified contained in said first command;~~

said management computer for transmitting to said storage device a second command containing information for specifying ~~any~~one of said computers in said first group of computers and information for specifying a read-ahead access history identifier for said one of said computers, and ~~said access history information; and~~

wherein, in response to said second command, said storage device ~~for reading~~ reads out data ~~specified by~~linked with said read-ahead access history identifier ~~information~~from

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said disk device to said cache memory, and ~~based on said second command received from said management computer, said pre-read data being determined in accordance with said access history information of said one of said computers in said first group of computers.~~

wherein, after issuing the second command to the storage device, said management computer causes said one of said computers in said first group of computers specified in said second command to start.

11.     (Currently amended)  A system according to claim 10, wherein said management computer maintains a schedule for interacting with said first group of computers and said storage device, ~~includes information about a schedule of a designation to be transmitted to said storage device by said computer itself,~~ and wherein said management computer transmits said first command~~s~~ ~~or~~and second command to said storage device based on said schedule.

12-23.  (Canceled)

24.     (New)  A system according to claim 10, wherein the first commands include activation conditions and wherein the storage device begins recording the history of a requesting computer upon detecting the activation condition corresponding to that requesting computer.

25.     (New)  A system according to claim 24, wherein the activation conditions specify an interval during which the history of requesting computers is recorded at the storage device.

26.     (New)  A system according to claim 24, wherein the activation conditions specify a time at which the storage device starts recording the history of requesting computers.

27.     (New)  A system according to claim 10, wherein the access histories comprise lists of storage locations corresponding to read requests received directly from one or more of said first group of computers by the storage device.

28.     (New)  A system according to claim 10, wherein the storage device associates each computer in the first group of computers with its plurality of access histories using a computer identifier.

29.     (New)  A system according to claim 28, wherein computer identifiers for the first group of computers change from time to time, and wherein the management computer detects these changes and notifies the storage device of the new identifiers.

30.     (New)  A method of operating a storage system comprising:

receiving a first command specifying a target computer, a history identifier associated with the target computer, and an activation condition;

detecting the activation condition;

selecting an access history from a plurality of access histories associated with the target computer using the access history identifier; and

updating the selected access history with information about data requested by the target computer.

31.     (New)  The method of claim 30 wherein the first command specifies a physical storage device, and wherein the selected access history comprises a list of storage locations corresponding to the physical storage device.

32.     (New)  The method of claim 30 wherein the first command includes a computer identifier for specifying the target computer, the method further comprising associating the target computer with the plurality of access histories based upon the computer identifier.

33.     (New)  The method of claim 30 further comprising receiving, from time to time, second commands with information for updating the computer identifier of the target computer.

34.     (New)  The method of claim 30 wherein updating the selected access history further comprises:

receiving a read request from the target computer; and

adding information about the read request to the selected access history if the activation condition is detected.

35.     (New)  The method of claim 34 wherein the activation condition specifies an interval of time, and wherein the selected access history is updated if the read request is received during the specified interval.

36.     (New)  The method of claim 30 further comprising receiving one or more third commands specifying the target computer and a read-ahead history identifier.

37.     (New)  The method of claim 36 further comprising:

selecting a second access history from the plurality of access histories associated with the target computer using the read-ahead history identifier; and

retrieving data from a storage device in accordance with the second access history; and

temporarily storing the data retrieved from the storage in a cache memory accessible to the target computer.